

Amendments to the Claims:

Please cancel claim 3, 16, 24, 25-27, 29 and 31 without prejudice.

Please amend claims 1, 4, 8, 14, 17, 21, 23, 28, 30 and 32.

Please add new claims 33-34.

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A method to bridge network packet media, comprising:
 - receiving a first network packet from a first media channel via a first network interface;
 - receiving a second network packet from a second media channel via a second network interface;
 - relaying the first network packet and the second network packet to a first shared processing resource via a switch fabric; and
 - using an application accessible to the first shared processing resource to bridge the first network packet to the second media channel via the second network interface and the second network packet to the first media channel via the first network interface, by
 - translating the first network packet from a first packet format associated with the first media channel to a first intermediate packet having an Ethernet media format;
 - translating the second network packet from a second packet format associated with the second media channel to a second intermediate packet having the Ethernet media format;
 - translating the first intermediate packet from the Ethernet media format to a first outbound network packet having the second packet format; and

translating the second intermediate packet from the Ethernet media format to a second outbound network packet having the first packet format,

wherein the application is a virtual bridge application accessible to the processing resource to bridge between the media channels and wherein the virtual bridge application uses a format translation table to bridge between the media channels, **[[and]]**

wherein the format translation table comprises a plurality of cells, wherein a first cell identifies appropriate format translation information for translating from the Ethernet media format to the first packet format and a second cell identifies appropriate format translation information for translating from the Ethernet media format to the second packet format,

wherein the processing resource uses metadata associated with each of the media channels to translate the network packets between the media channels, and

wherein a metadata element from the second media channel and the first packet format uniquely identify the first cell.

2. **(Previously Presented)** The method of claim 1 wherein the first media channel is a different media channel from the second media channel.

3. **(Cancelled)**

4. **(Currently Amended)** The method of **[[3]] 1** wherein the metadata includes Ethernet header data.

5. **(Previously Presented)** The method of claim 1 wherein the application relays at least one of the network packets to other applications accessible to a second processing resource in order to assist in bridging between the media channels.

6 – 7. **(Cancelled)**

8. (**Currently Amended**) The method of claim 1 wherein the processing resource and the network interfaces are implemented in at least one of a network router, a network switch, and a high-density server.

9 - 13. (**Cancelled**)

14. (**Currently Amended**) A network packet media bridging system, comprising:

a plurality of network interfaces, wherein each network interface of the plurality of network interfaces accepts network packets from a different media transmission channel; **[[and]]**

a bridging application that is accessible to a single processing resource for receiving the network packets from the network interfaces and for translating the network packets between media formats using Ethernet for delivery to a plurality of heterogeneous media transmission channels, wherein the bridging application includes a plurality of mappings for bridging network packets between the heterogeneous media transmission channels, wherein each mapping is configured to map an Ethernet format to an associated one of the heterogeneous media formats;

wherein the bridging application accesses metadata associated with the network packets and wherein the metadata is associated with the media formats of the network packets; and

wherein the metadata includes metadata elements, and wherein a metadata element identifier of a received network packet and an identifier of the heterogeneous packet format to be translated to, uniquely identify the mapping used to translate from the Ethernet media format to the heterogeneous packet format.

15. (**Original**) The network packet media bridging system of claim 14, wherein the bridging application is dynamically instantiated and configurable within the processing resource.

16. (**Cancelled**)

17. **(Currently Amended)** The network packet media bridging system of claim ~~[[16]]~~ **14**, wherein the bridging application uses Ethernet header data included within the metadata to translate the network packets to an Ethernet format before translating the network packets between the media formats.

18. **(Original)** The network packet media bridging system of claim 14, wherein the bridging application communicates with one or more additional processing resources having one or more additional applications in order to translate the network packets between the media formats.

19. **(Original)** The network packet media bridging system of claim 14, wherein the media formats include at least one of a Gigabit Ethernet (GigE) format, a Frame Relay (FR) format, a Time-Division Multiplexing (TDM) format, and an Asynchronous Transfer Mode (ATM) format.

20. **(Original)** The network packet media bridging system of claim 14, wherein the bridging application is a virtual media bridge using Ethernet to translate between the media formats.

21. **(Currently Amended)** A method comprising:

receiving network packets from a plurality of different media channels via respective network interfaces of a network packet media bridging system, **each of the received network packets including Ethernet header data;**

relaying, via a switch fabric, the network packets to **a** shared processing resource operating as a virtual, media agnostic Ethernet bridge;

the shared processing resource directly or indirectly using Ethernet to translate among heterogeneous media formats associated with the different media channels;

[[and]]

accessing a data structure for use in bridging network packets between the different media channels, wherein the data structure includes mappings from Ethernet to associated ones of the heterogeneous media formats;

using the Ethernet header data to translate the received network packets from an originally received media format to an intermediate Ethernet media format;

selecting one of the mappings in the data structure based on a desired output media format and a metadata element of the Ethernet header in combination; and
translating from the intermediate Ethernet media format to the desired outbound media format using the selected mapping.

22. (Cancelled)

23. (Currently Amended) The method of claim ~~[[22]]~~ 21, wherein the translation data structure is configurable to accept a plurality of media format translations from a Graphical User Interface (GUI) application.

24-27. (Cancelled)

28. (Currently Amended) The method of claim ~~[[27]]~~ 1, wherein a metadata element identifier and a first packet format identifier form a tuple referencing the first cell.

29. (Cancelled)

30. (Currently Amended) The network packet media bridging system of claim ~~[[29]]~~ 14, wherein the metadata element identifier and the identifier of the heterogeneous packet format form a tuple referencing the mapping.

31. (Cancelled)

32. (Currently Amended) The method of claim ~~[[31]]~~ 21, wherein a metadata element identifier and an outbound packet format identifier form a tuple designating the one of the mappings.

33. **(New)** A method comprising:

- a step for receiving network packets from a plurality of different media channels via respective network interfaces of a network packet media bridging system, each of the received network packets including Ethernet header data;

- a step for relaying, via a switch fabric, the network packets to a shared processing resource operating as a virtual, media agnostic Ethernet bridge;

- a step for the shared processing resource directly or indirectly using Ethernet to translate among heterogeneous media formats associated with the different media channels;

- a step for accessing a data structure for use in bridging network packets between the different media channels, wherein the data structure includes mappings from Ethernet to associated ones of the heterogeneous media formats;

- a step for using the Ethernet header data to translate the received network packets from an originally received media format to an intermediate Ethernet media format;

- a step for selecting one of the mappings in the data structure based on a desired output media format and a metadata element of the Ethernet header in combination; and

- a step for translating from the intermediate Ethernet media format to the desired outbound media format using the selected mapping.

34. **(New)** A program storage device readable by a network device, tangibly embodying a program of instructions executable by the network device to perform method steps for bridging network packets between media channels, said method steps comprising:

- receiving network packets from a plurality of different media channels via respective network interfaces of the network device, each of the received network packets including Ethernet header data;

- relaying, via a switch fabric of the network device, the network packets to a shared processing resource of the network device operating as a virtual, media agnostic Ethernet bridge;

- the shared processing resource directly or indirectly using Ethernet to translate among heterogeneous media formats associated with the different media channels;

accessing a data structure for use in bridging network packets between the different media channels, wherein the data structure includes mappings from Ethernet to associated ones of the heterogeneous media formats;

using the Ethernet header data to translate the received network packets from an originally received media format to an intermediate Ethernet media format;

selecting one of the mappings in the data structure based on a desired output media format and a metadata element of the Ethernet header in combination; and

translating from the intermediate Ethernet media format to the desired outbound media format using the selected mapping.